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## **“Cryptographer-Magician” and Other Modes of Presence of Cryptography in Contemporary American Cinema**

It is due to the explosion of communication technologies in the last decades of the twentieth century that a mixture of secrecy and cryptography has gained cultural momentum and earned a truly solid position in contemporary popular imagination – perhaps installing a more universal cryptographic imagination than the one reserved strictly for those *in the know*, perhaps *reinstalling* to a certain degree a cryptographic interest once entertained by a public enthralled by Edgar Allan Poe’s cryptographic riddles. For example, in recent years, one of the more productive modes of thinking about cryptography and secrecy has been portrayed by a series of Hollywood productions (*six* big budget movies at a minimum), while a countless number of times cryptography was called upon as the ultimate secrecy-assuring technology, only to be penetrated by the ultimate wizard-cryptanalysts in B class movies and television shows, creating one of the more persistent clichés of modern culture. A league of its own has been maintained by a conspiracy theory culture where a peculiar kind of the snowball effect finds no idea too extraordinary – or too ridiculous – to be credited and marketed as *the greatest secret of all times*.

Cultural manifestations of this “cryptographic sensitivity” do not constitute a unified trend, school, or subculture. The near obsession with secrecy and secret codes manifests itself equally visibly in conservative-paranoid “decoding” of “crypto-satanic” messages hidden in rock-and-roll lyrics, as in the Bible code industry or, for that matter, in neo-leftist readings of recent America’s major crises, such as Michael Moore’s *Fahrenheit 9/11*,<sup>1</sup> famously exposing “secrets” of the George W. Bush administration. Yet to dismiss the impact of these productions would be

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<sup>1</sup> *Fahrenheit 9/11*, directed by Michael Moore (Columbia Tristar, 2004).

a massive error. For example, radical journalism such as Moore’s relies on the long tradition of investigative journalism, nowhere else in the world as successful in exposing governmental secrecy-craze frauds, adding a significant amount of transparency to that which would otherwise remain opaque, precisely due to the curiosity generated by secrecy. People like Bob Woodward and Carl Bernstein, the authors behind the exposure of the Watergate scandal and Seymour Hersh, who helped to expose the My Lai massacre, *as well as* the political establishment, *as well as* the whole Conspiracy Theory Culture with its Lincoln-JFK-RFK-MLK assassination theories, “HIV-myth” expositions, UFOs, “Moon landing scams,” etc., all contribute to the position of secrecy within American society; a society in which, plainly, “truth” sells, especially truths that need to be exposed from beneath superimposed secrecy. A society that, on the other hand, is constantly being pressed to celebrate the necessity and significance of governmental secrecy in places in which it is appointed a guard of national security, particularly when it helps fight the malevolent secrecy other parties entertain.

The most spectacular example of this celebration, the “Kryptos” sculpture located on the grounds of the Central Intelligence Agency in Langley, Virginia, is indeed a curious monument dedicated to “intelligence gathering.” A large vertical S-shaped copper screen resembling a scroll, or a piece of paper emerging from a computer printer, covered with characters consisting of the 26 letters of the standard Latin alphabet and question marks cut out of the copper. This “inscription” contains four separate enigmatic messages, each apparently encrypted with a different cipher. A modern Rosetta stone, intentionally left for the future generations to ponder, the Kryptos sculpture has stimulated much speculation about the meanings of the encrypted messages it bears since its dedication on November 3, 1990.

It would be misleading to claim that any precise typology of cryptographic themes could be extracted from American culture. The rich assortment of secrecy- and cryptography-touched cultural productions suggests, however, that specific *modes* of representations of sensitivity to secrecy and to cryptography in American culture can be described, if not as predominant, then definitely as noteworthy. Cinematography offers a solid body of instances from which such conclusions can be drawn.

### Cryptographer-Magician in Cinema

Cinema's treatment of cryptographic themes seems particularly arresting. After all, cinematography has in itself been a transforming technology which remodeled art as much as popular culture, propaganda, and (by extension) politics. Cinematography's own earliest multifold relationship with technology and the dilemmas submerged in the spreading of technologies were dramatically documented by the huge first moving pictures' commercial successes which were, simultaneously, a presentation of a technological wonder, capable of arousing unprecedented emotions, as well as valid social commentary. This lineage still lives on, despite criticism from leftist intellectuals such as Theodor Adorno and Max Horkheimer that cinematography earned relatively early in its history, addressing cinema's inabilities to raise truly crucial social issues, due to its "ruthless unity," necessarily monopolizing whatever artistic expression might exist, necessarily subordinated to the monopoly of the "culture industry."<sup>2</sup> Cinematography, even in its most outrageously commercial forms, together with the popular music industry, not only creates the popular taste and sensitivity, but answers to them, too, constructing a massively complex architecture of relative interdependencies between the individual, popular, and corporate tastes, between demand and supply, both on aesthetic and economic levels.

Hence, due to this complexity, the presence of cryptographic technologies in cinema can hardly be rationally perceived either as a conscious voice in a debate, or as ideologically innocent – particularly, of course, also because this presence never takes the form of a unified ideological discourse. Too many seemingly conflicting political trajectories intersect over the corporate storyboards. For example: the vitriolically anti-NSA *Enemy of the State*<sup>3</sup> can be superficially read as an outcry for long-gone privacy, a dystopian portrayal of the governmental surveillance society gone wild against Civil Rights and individual freedoms, while the 1995 *The Net*<sup>4</sup> won similar critical accolades thanks to precisely opposite politics, due to its depictions of terrorist hackers and heroic FBI agents fighting to reaffirm the stolen identity of defenseless individuals; the movie could be cited verbatim in government sponsored electronic security seminars, preaching a certain national security/privacy *balanced rhetoric* from the pulpit.

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<sup>2</sup> Theodor Adorno and Max Horkheimer, "The Culture Industry: Enlightenment as Mass Deception," in *Dialectic of Enlightenment* (New York: Continuum, 1993), originally published as *Dialektik der Aufklärung*, 1944.

<sup>3</sup> *Enemy of the State*, directed by Tony Scott (Touchstone Pictures, 1998).

<sup>4</sup> *The Net*, directed by Irwin Winkler (Columbia Pictures, 1995).

Note, however, that one of the most persistent modes of cryptography’s silent presence in contemporary consumer societies is in anti-piracy technologies implemented on nearly every single legitimate DVD disc sold worldwide. Most of these discs also include another cryptography-based technology: the Region Code, which is designed to prevent premature distribution of material published locally ahead of big screen premieres in other localities, thus securing box-office turnovers as well as the DVD market returns.<sup>5</sup> Another of these modes is in the encoded cable, digital satellite, and pay-per-view television, which often is scrambled (via the use of encryption) to prevent unauthorized access to the broadcast content, mostly – apart from sport events – consisting of Hollywood entertainment. It all adds up to the conclusion that show business, the most important player within the culture industry, is amongst the strongest consumers of cryptographic technologies, likely insatiable in the desire to control the copyrights of their productions, and hence naturally collectively interested in securing goals that without freely marketed cryptography would be unobtainable. This makes the portrayal of the presence of cryptography in American cinematography only more worth investigating, as it is those links between economic interests of the popular culture sector of American economy, cryptographic research and the market that make a strong argument for the claim that whatever the ideological tone of the numerous cryptographic “episodes” appearing today more and more often on the screen, they might be all crudely interpreted as a “voice” in the ongoing cryptographic debate, if only because few players in global economy are more vitally interested in the outcomes of this debate.

Curiously, contemporary big-budget cinema takes up the challenge of proving the validity of “its own voice,” surprisingly often employing a self conscious mode of narration to comment upon itself. It is useful to start the discussion of the presence of cryptography in cinema with precisely such a self-conscious, declaratory voice, also because it may help illustrate the more universal arguments presented along the way.

### ***Swordfish***

The large-scale illegal money transfer orchestrated by the ultra-secret organization “Swordfish” set up within the U.S. government to provide

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<sup>5</sup> Another is on the verge of being even more universally distributed, in the form of anti-piracy technologies implemented by the global music industry to prevent illicit copying of the copyrighted material.

financing for global anti-terrorist activities calls for a spectacular hi-tech bank break-in and requires that cutting-edge technology security systems guarding the money be broken. To this last end (which is really the beginning) a talented hacker, Stanley Jobson (Hugh Jackman), famed for his cryptographic talents which have earned him a couple of years' imprisonment and a federal ban on operating computers, is hired, lured – somewhat sentimentally – by a chunky sum he means to use to secure his parental powers over a pre-adolescent daughter, now living with an ex-wife-cum-adult-movie-star. The beginning of *Swordfish*<sup>6</sup> implies outbursts of clichés to follow that make up a movie that is almost completely absurd. Yet, it as cunningly as narrowly escapes the characterization of *total absurdity* by its strongly suggested self-consciousness. Many a time the characters refer to the goings-on directly as parts of a movie plot, sometimes, as in the startling opening sequence, confronting the “eye of the camera,” as if addressing the audience directly, communicating openly the conventionality of the movie's reality.

This high level of self-consciousness helps the viewer to swallow the brutality and unreality of a number of sequences, such as the pivotal high-speed urban pursuit and its gore-galore conclusion. Yet also, and things are getting more interesting here, by justifying everything that happens in the movie as elements of conventionalized fiction, *Swordfish* makes it possible for itself to resort to symbolic representations of operations that, when presented realistically, must strike the thrill-awaiting audience as boring. This is of course hardly a novelty in the movie industry, where whole genres (such as the courtroom procedural) have been built around such principles of conventionality that turn the dull and tiresome into thrill and ecstasy, yet *Swordfish*'s attempt seems unique precisely due to its considerable honesty in labelling fiction as fiction.

One sphere of activity that surely belongs to this symbolic class of spiced up dullness is computing, hacking, and the cryptographic practices that all play a significant part in *Swordfish*. Like countless movies and television shows before it, *Swordfish* employs a spectacular technological and visual engine to represent computation as a tricky and risky play with mathematical objects<sup>7</sup> moved around in virtual realities. A key

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<sup>6</sup> *Swordfish*, directed by Dominic Sena (Warner Bros., 2001).

<sup>7</sup> The original such treatment of computing comes from the 1982 movie *Tron*, directed by Steven Lisberger (Walt Disney Pictures, 1982), importantly predating William Gibson's *Neuromancer* by a couple of years. In *Tron*, a hacker is literally abducted into a computer and forced to participate in gladiatorial games where his only chance of escape is with the help of a heroic security program.



sequence portrays Jobson working on “a worm” which is to disable the security system of the best guarded banking organization targeted by the paranoid arch-evil Gabriel Shear (John Travolta). Perhaps *Swordfish*’s most legitimate claims to originality lie precisely in this sequence, in which Jobson, nearly twenty years after Gibson’s case of *Neuromancer* fame, and several years after ill-executed attempts to represent the same in movies based on Gibson’s prose, such as *Johnny Mnemonic*<sup>8</sup> and others,<sup>9</sup> literally *performs, dances out* his suggestively sexual relationship to computing, hacking, and cryptography, figuratively working out the metaphors of early burning failures, luring courtship and finally of breaking in and penetration – all in an entranced ballet.

Thus, what often strikes one as simplistic and utterly absurd in other productions employing such colour-adding tactics of making the dull interesting, such as the proverbial “objection-overruled” cliché and the theatrical defense speeches of the courtroom thriller, all this absurdity is partially *rationalized as fictitious* in a self-conscious set-up. Moreover, it seems that a greater freedom to present the unlikely that movies like *Swordfish* grant themselves, opens up space for more free interpretations in which the *fictitious specific* may be read as *the symbolic general*, without raising the criticism pertaining to the “realism” of such representations. The sequence of the sex-cryptography-crazed Jobson is an example of such possible interpretations: via the purely fictional and unrealistic treatment of a specific hacking action, the movie comments upon the general symbolic readings of computing which are soaked in ideology. This, after all, is characteristic of metaphorical language of the cinema in general.

On the other hand, however, if such specific-symbolic commentaries on the general are to affect audiences, they must carry with them a fair amount of real or imagined universalisms – that is, such qualities that either reside in the collective social imagination and can be interpreted by it as likely, or are imagined to reside there by the movie itself. Hence, and this point is of the outmost importance for this analysis, from those symbolic treatments more general commentaries about social imagination can be extracted, with the annotation perhaps that what possibly cannot be established is whether fiction recreates universalisms presents in society, or whether it plants such imagined universalisms into society. Yet this is a possibly unsolvable dilemma which, when submerged in the theoretical landscape outlined by, for example, Baudrillard’s theory of simulacra and Barthes’s theory of the

<sup>8</sup> *Johnny Mnemonic*, directed by Robert Longo (TriStar Pictures, 1995).

<sup>9</sup> For example, *Disclosure*, directed by Barry Levinson (Warner Bros., 1994).

mythical mode of speech, may be looked upon as immaterial. Possibly, then, the movie's strongest scene (the Jobson dance) highlights a nearly universal trend in representing computing, and even most persistent in representing cryptographic practice – as a performance of individual excellence, a spark of genius, a force of nature set loose against the artificial worlds of computing and cryptography.

### ***Mercury Rising***

Similarly, the young and fragile innocent boy of *Mercury Rising*,<sup>10</sup> Simon Lynch (Miko Hughes), unaware of the mighty powers residing within him, as little as of the powers that are after him, comes to represent a peculiar vision of technology itself, which the movie equates with the qualities of nature: there is nothing artificial about the boy's gift, it just happened to him due to the natural inheritance of genes. The nine-year-old autistic boy is a natural code-breaker, an unexplained freak of nature who reads the new U.S. super code as others read newspapers. "Impossible to break," the code was to provide the ultimate intelligence advantage for the U.S. government. As bodies pile up to keep the secret secret, a bitter ex-FBI agent (Bruce Willis) helps the boy survive the carnage and find him a way to freedom.

Yet, perversely, in the movie the quest for individual freedom is a quest for the right to not exercise one's abilities. More to the point, the cryptographic gift that Simon possesses is rendered as a teleological force, oddly foreshadowing the description of Jobson's physical immersion in crypto and computing – quite remote from the lifeless, repetitive geek image: cryptography is again individualistic, even autistic, wild, uncanny and, above all, mystical.

### ***Pi***

A similar mysticism, reinforced by the thematic juxtaposition of cryptography, economy, and religion, is possibly nowhere portrayed more powerfully in popular culture than in the debut movie by Darren Aronofsky. *Pi*'s<sup>11</sup> protagonist, a young computer expert named Maximilian Cohen (Sean Gullette), is on a quest for a universal principle governing nature, society, and the economy. Max, a mathematical

<sup>10</sup> *Mercury Rising*, directed by Harold Becker (Universal Pictures, 1998).

<sup>11</sup> *Pi*, directed by Darren Aronofsky (Harvest Filmworks, 1998).



genius, seeks to extract this principle from the number “pi,” reflecting an ambition quite similar to the artistic and teleological trends that have been eager to find such universalism in the Golden Section and Fibonacci sequence derived from number “phi,” recently popularized by Dan Brown’s notorious thriller *The DaVinci Code*. Max, though, uses a drastically different methodology – he employs a self-built computer to run endless calculations in search of a pattern the existence of which he casually reminds himself of in the daily mantra of “repeating of assumptions”: there is order in nature, mathematics is ordered, hence there is mathematics in nature; if mathematics can provide perfect order so can nature, should the mathematical principle of nature be found.

The movie takes two dramatic turns as Max’s search proves to have significant theological validity: first, he is stalked by the orthodox Hasidic Kabala researchers who try to convince him of the divine origin of the pattern he is after, talking him into using his singular talent to support their quest for the long-lost mathematical-religious mysteries in the Torah. Second, he is lured by an economic Wall Street superpower portrayed as Satan into intense research of the economic revelations the pattern/number should bring about. As Satan seduces Max with offers to mirror the Kabala researchers’ experience and wisdom by providing the ultramodern super chip for Cohen’s motherboard in hope of quickening his research, Max is trapped in-between two orders.

Again, as in the cases of *Mercury Rising*’s boy as well as *Swordfish*’s Jobson, what both the Kabala orthodox and Satan are after is really Max’s personal ability, the genius that he cannot explain. Throughout the movie Max speaks of his mathematical/computing experience in terms of revelation; he is only capable of focusing on issues to solve and as it were observes them being solved. Again, his personal story is that of innocence and freedom threatened by forces seeking exploitation of his ability. In *Pi* this ability is also a potent force, as much strengthening Max intellectually as weakening him physically – clearly it is the source of his sickness: his headaches, passing-out and seizures all suggest a close link between the mental and physical stimuli of his condition. Again, like Simon’s, Max’s struggle for innocence turns into an internal struggle against his ability; yet it is no longer physical projection, as in the case of *Mercury Rising*’s boy, nor the ability’s capacity to outsmart the persecutors, as was the case of *Swordfish*’s Jobson, that may secure Max’s innocence, but the actual annihilation of the very ability which he carries out in a violent act of self-destruction. In the movie’s final sequences Max literally defeats his ability by driving a rotating drill into his brain, an actual lobotomy which acquires the symbolic significance of a liberatory act: he miraculously survives it only to show his bliss at

his resultant lack of ability. As he is asked in the final sequence about a simple mathematical riddle by the iconic-innocent preadolescent neighbour, Max cannot help expressing his utter relief, sharing innocence rooted in ignorance.

Not at all dismissing nor diminishing great artistic, stylistic and thematic differences between the three movies, it can be stated nonetheless, as has been already signalled, that they share a number of characteristics in their modes of representation of technological prowess that can be read as symbolic, universalistic, and teleological. Similar narrative strategies populate a plethora of other movies, often B-class productions, not always centered around cryptography or secrecy, yet featuring objectified symbolic visions of digital technologies. The most prevalent of these clichés is perhaps the ritualized treatment of digital security systems and their casual breaking by the technologically-slash-alchemically-gifted “hackers.” The structural patterns of these hacks/breakings range from accidental/absurd (as the notorious keying in of guessed passwords and passphrases to gain access to the best kept secrets) to the most technologically advanced (and often similarly absurd), such as the use of magical digital gadgetry, infecting systems with viruses or trojan horses, sometimes enriched with a decent dose of romanticized social engineering. Whatever the pattern, however, more often than not these efforts share a common element – the capacity to break the system rests in the individualized gift/genius/ability, often accompanied by technical gadgetry. Indeed, very rarely do Hollywood theatrical productions and TV series narrate team effort, research, or even peer-review as necessary ingredients of the successful hack – they almost invariably choose to fictionalize digital security as *magic* and the breaking thereof as *counter-magic*. Such teleological treatment of digital technology in general, and cryptographic practices in particular, as well as endowing the hacker/cryptographer with the natural/magical gift, closely linked to religious or quasi-religious rites, illustrate a metaphysical piousness towards these technologies in America. After over thirty years since the computer was first featured in American cinematography, it is still rendered as the magical box beyond the comprehension of the audience, which requires magical skills to operate and even more magical abilities to control. This mode of representation mirrors and stimulates the popular anxiety towards digital technologies, including cryptographic technologies, which link the computer even more tightly with the magical and the sacred. Cryptography, the most arcane of digital technologies, is hence rendered as the ultimate “tech/sacred secret,” and the cryptographer as a high priest, the blessed-cursed communicator.

### Cryptographic Pseudo-history

A peculiar sub-class of technology-touched cinematography includes a number of contemporary pseudo-historical films oriented at appropriating the narratives of digital breakthroughs and histories of pivotal cryptographic episodes. Movies such as *U-571*<sup>12</sup> and *Windtalkers*<sup>13</sup> exploit cryptographic themes to cash in on the conservatively structured thriller format, yet the context (WWII) and theme-specific contents (cryptographic narratives) mark their importance in shaping and mirroring the social cryptographic imagination. *Windtalkers* is an explosives-packed war drama narrating the war experience of two fictitious Navajo radio operators, its plot based loosely on the recently well-documented and appraised histories of Navajo war heroes, who by encoding crucial Pacific theater transmissions in a code based on their native language, understandable at the time to only a handful of whites and presumably to no Japanese, proved crucial to the American victory. *U-571*, on the other hand, takes its inspiration from the true story of two British navy-men who sacrificed their lives trying (successfully) to recover German codebooks from a sinking U-boat, to create a narrative of a fictitious dramatic takeover of a German submarine by an American crew. The movies' contextual setting in the “last just war” America has fought helps to amplify the effect of the side narrative of cryptographic endeavours, by repressing the moral objections to military conflicts in general and to military misconduct in particular that informed nearly all American Vietnam War movies, thus allowing the audience to enjoy the picturesque combat brutality as well as making it possible for the theme-specific content to stand out and possibly sink more easily. Hence, the movies' “educational” impact (education perceived here more as indoctrination with an appropriated version of history than anything else) cannot be dismissed – it seems that to the Hollywood-stigmatized mind, history can make sense only if it itself plays a role in the more general war drama scenario. Then, although neither of these movies is in any way faithful to “what really happened” and in fact presents events that could be and have been perceived as outright manipulations, their educational aspects are important. As the box office logic dictates, it is market-wise and safer to rationalize history as fictionalized individual heroism than to occupy the audience with the strategic and globally oriented “academic” – historical discourse,

<sup>12</sup> *U-571*, directed by Jonatan Mostow (Universal Pictures, 2000).

<sup>13</sup> *Windtalkers*, directed by Jon Woo (MGM, 2002).

these movies perform in fact the same duties as academic history – if only staggeringly more efficiently. History *is* memory, after all, and the movies organize popular memory around issues to date resting mute within the governmental archives and slowly permeating the quiet academic historical discourse. Controversial as it sounds, it is the voicing, resonating in the popular discourse of movie reviews and post-movie-watching experience, that shapes the popular imagination more vividly than the publication of research, on which the movies are only loosely based. Again controversially, it nonetheless seems a sound statement to conclude that popular memory/history becomes enriched upon publication of such Hollywood blockbusters *both* quantitatively and qualitatively, yet of course this has to be read as a bitter conclusion, since it is valid only if the argument about the weakness of alternative channels of historical awareness such as products of academic history is itself acknowledged as sound.

This combination of a fetishist pseudo-religious approach to cryptography and cryptographers and pseudo-historical narratives implies a common teleological desire to impose order upon perceived chaos: after all, motivations for religion and history are similar in their arrangement of chaos into hierarchical psychological and social structures. Also, echoing the notoriety surrounding the most extreme of the recent alliances of teleology with technology – the so-called “Bible codes industry” that aims at breaking the divine code of the Torah – cryptography’s place in cinematography, and indeed in popular culture in general, is a good illustration of the levels of anxiety towards it that exist throughout society. Marked by the anxiety characteristic of all encounters with the sacred, on the one hand, and by the paradoxical aspiration to educate/entertain, the cultural space occupied by cryptography could be outlined by the notions of magical and religious discourse that also, like all secrecy, seemingly separate, but at the same time communicate (make common to many): *fetish*, *taboo*, *sacredness*, *sacrilege*, *communication*, and *communion*. Like any sacred-secret (the linkage between the two hinted at not only by etymology), cryptography causes nearly universal ambivalence: the complexity beyond imagination and the imagined flavour of exciting power-plays implied by the ever self-indulgent popular culture attract and revolt at the same time.

Let us note in passing, however, that the magical and pseudo-religious readings of the presence of cryptography differ significantly, and in fact mark levels of the ignorance that breeds all this anxiety towards cryptography and results in the corresponding portrayal in culture. The cryptographer rendered/read as a high priest – a medium/communicator, whose assignment is not control but social maintenance of the secret

(of technology?), to which he himself (supposedly or seemingly) has no true access – is dramatically distinct from the cryptographer rendered/read as an alchemist/magician, who imposes his/her power upon the mysteries of nature (technology). The former mode of cryptographic imagination gives up fetishes and exchanges them for a cult of technology, where no comprehension whatsoever is needed in order to embrace the blessings of *techne* – this mode is characteristic for all naïve technophilic narratives of technological wonders vastly popular in the nineteenth century. Losing significance in the first half of the twentieth century due to the horrors of the technological wars brought upon the world by technology-crazed autocratic societies, this mode regained importance in the Cold War world, in which consumer technologies turned individual lives to inactive and ignorant reception, only to lose it again, with the arrival of cyberpunk, which underlined the bittersweet ambivalence towards technology (and, in particular, towards digital technology) in developed societies. The latter mode, then, by far better distributed in culture today, is represented by an active elite, those *in-the-know*, powerful magicians/alchemists, who control or try to control the inaccessible secret, often tortured by dilemmas common to all magicians: the limits of their power.

Quite obviously, neither of these modes outlining the cultural positioning of cryptography, an important transforming technology with an impact on each and every individual living in highly developed societies, is socially beneficial. It is as unsurprising as it is saddening that cinematographic popular culture fails spectacularly in *realistic* portrayal of cryptography, yet this is expandable to a conclusion that extends to whatsoever presentation of all digital technologies in popular culture. Should popular culture be realistic it would likely cease to be popular. With the lack of popularity, the representations of cryptographic practice in those productions would lose their impact. History explained in those fictitious pseudo-historical renditions would become less true, precisely because of its realism.

This last point suggests another crucial dilemma. As it has become commonplace to discuss contemporary academic history, particularly in the light of works of White, Lyotard, Foucault, Barthes, Eco, Derrida, and others, in terms of competing subjective metanarratives, texts inducing other texts heavily informed by individual ideologies – a trend perhaps best summarized in one of the more persisting post-modern slogans stating that “all history is historiography”<sup>14</sup> – it may appear crucial

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<sup>14</sup> Hayden White, *The Content of the Form: Narrative Discourse and Historical Representation* (Baltimore: Johns Hopkins University Press, 1987), p. 209.

to ask what, if any, ideologies mark the popular, market-wise history/historiography of contemporary cinematography. By extension, this question can be put in regard to all cultural productions discussed here, not only pseudo-historical and not only cinematographic. It is always curious how easily leftist paradigms tend to dismiss this question by invariably linking these ideologies to strictly class-bound power relations of capitalist or post-capitalist societies, offering the get-away answer that these ideologies equal capitalism, as the primary mode of operation of popular culture is market-based. Such theorizing has been present in the left, in the critical works of the Frankfurt School of criticism and, recently marks heavily the discourses of cyber-culture. While not dismissing at all the leftist critique that point to the market incentive of popular culture, for this would be absurd in the world of popular culture flooded by mechanical recreations of icons of superstardom, I am nonetheless tempted to point to a significant heterogenization of popular culture, even if it results from the homogenized capitalist logic of wealth that requires, in the field of consumer culture, also adjustment to existing heterogeneous tastes. This has a curious effect: even if dictated by common super-ideology, popular culture is experiencing today a robust period of heterogenization rather than homogenization, marketed often under trademarked niches and pseudo-elitist trends, addressing a number of ideologies present within the society at large. These different modes of address perceptible in distinct popular culture aesthetics stimulate and amplify often incompatible ideological stands – a process that can be read as hyper-cynical or paradoxical, depending on the observer's bias towards the aftermath of such stimulation and amplification.

Marcin Sarnek

**Kryptograf jako magik i inne przykłady obecności kryptografii  
we współczesnym kinie amerykańskim**

**Streszczenie**

Artykuł stanowi wybiórczą analizę kilku współczesnych filmów amerykańskich (*Swordfish*, *Pi*, *Mercury Rising*, *U-571*, *Windtalkers*) pod kątem obecności w nich tematyki kryptograficznej. Technologie kryptograficzne wzbudzają zainteresowanie twórców filmowych już od momentu swojej względnej popularyzacji w latach 70. XX wieku. Jednak to w ostatniej dekadzie XX wieku oraz w pierwszej dekadzie XXI wieku motywy kryptograficzne zaczęły pojawiać się w kinie amerykańskim niezwykle często. Ma to związek z rosnącą wrażliwością społeczną na zagrożenia płynące



z niekontrolowanego rozwoju nowych mediów, w których technologie kryptograficzne odgrywają bardzo znaczącą rolę – z jednej strony jako najważniejsze technologie umożliwiające zachowanie prawa do prywatności (z ang. *Privacy Enhancing Technologies*), z drugiej zaś strony traktowane przez kinematografię amerykańską jako sztandarowy przykład odzwierciedlający społeczną nieufność wobec powszechnej komputeryzacji. Autor artykułu znajduje w wybranych filmach dwa dominujące sposoby przedstawienia kryptografii: (1) rytualizację praktyk kryptograficznych, przedstawionych w formie tajemniczych, czy wręcz magicznych, czynności, których zrozumienie wykracza poza możliwości zwykłych śmiertelników; oraz (2) indywidualizację „talentu” kryptograficznego, przedstawianego jako „dar natury”, charakteryzujący obdarzone niezwykłą intuicją i umiejętnością jednostki. Obie te praktyki sugerują podobne teleologiczne ambicje: kryptografia (a w szczególności kryptoanaliza) jawi się w omawianych filmach jako praktyka przywracająca porządek i znaczenie pogmatwanemu światu, kryptograf natomiast staje się swoistym kapłanem komunikującym w rytualny sposób prawdę ukrytą za kodem zaszyfrowanego tekstu lub magiem panującym nad niedostępnymi innym siłami technologii, która sama w sobie przedstawiana jest jako system magiczny.

Marcin Sarnek

# **Le cryptographe comme magicien et autres exemples de la présence de cryptographie dans le cinéma américain contemporain**

## Résumé

L'article constitue une analyse sélective de quelques films américains contemporains (*Swordfish*, *Pi*, *Mercury Rising*, *U-571*, *Windtalkers*) sous l'angle de la présentation de la thématique cryptographique. Les technologies cryptographiques éveillent l'intérêt des cinéastes déjà à partir de leur popularisation relative dans les années 70. du XX<sup>e</sup> siècle. Pourtant c'est dans la dernière décennie du XX<sup>e</sup> siècle et dans la première du XXI<sup>e</sup> siècle les motifs cryptographiques apparaissent dans le cinéma américain très souvent. Cela est lié avec la sensibilité sociale croissante aux menaces découlant du développement non contrôlé de nouveaux médias, dans lesquels les technologies cryptographiques jouent un rôle très important – d'un côté comme des technologies principales qui rendent possible de garder le droit à la vie privée (en anglais *Privacy Enhancing Technologies*), de l'autre elles sont traitées par la cinématographie américaine comme exemple clé exprimant la méfiance sociale par rapport à l'informatisation globale. L'auteur de l'article trouve dans les films choisis deux méthodes dominantes de présenter la cryptographie : (1) ritualisation des pratiques cryptographiques, présentées sous forme des activités mystérieuses, presque magiques, dont la compréhension dépasse des mortels ordinaires ; (2) individualisation du « talent » cryptographique, présenté comme «un don de la nature », qui caractérise des individus, dotés d'une grande intuition et des capacités. Ces deux pratiques suggèrent des ambitions téléologiques : la cryptographie (et particulièrement la cryptanalyse) apparaît dans les films étudiés comme pratique qui rétablit l'ordre et la signification au monde confus, le cryptographe devient une sorte de prêtre, communiquant de manière rituelle la vérité, cachée derrière un code du texte chiffré, ou un mage dominant des forces de la technologie, inaccessibles aux autres, qui est présentée à son tour comme un système magique.